

## ABSTRACT OF THE INVENTION

An infrastructure and a set of steps are disclosed for evaluating performance of computer systems. The infrastructure and method provide a flexible platform for carrying out analysis of various computer systems under various workload conditions.

5 The flexible platform is achieved by allowing/supporting independent designation/incorporation of a workload specification and a system upon which the workload is executed. The analytical framework disclosed and claimed herein facilitates flexible/dynamic integration of various hardware models and workload specifications into a system performance analysis, and potentially streamlines development of customized  
10 computer software/system specific analyses.

The disclosed performance technology infrastructure includes a workload specification interface facilitating designation of a particular computing instruction workload. The workload comprises a list of resource usage requests. The performance technology infrastructure also includes a hardware model interface facilitating  
15 designation of a particular computing environment (e.g., hardware configuration and/or network/multiprocessing load). A disclosed hardware model comprises a specification of delays associated with particular resource uses. A disclosed hardware specification further specifies a hardware configuration describing actual resource elements (e.g., hardware devices) and their interconnections in the system of interest. The performance  
20 technology infrastructure further comprises an evaluation engine for performing a system performance analysis in accordance with a specified workload and hardware model incorporated via the workload specification and hardware model interfaces.

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